

Strongcoat Terrazzo

High solids pigmented epoxy resin for decorative terrazzo flooring systems



DESCRIPTION

Strongcoat Terrazzo is a two-component, high solids seamless decorative flooring system consists of a highly durable and pigmented epoxy resin which can be mixed with a wide variety of synthetic or natural aggregates such as silica sand, marble chips, coloured and clear glass chips and many others to produce a durable and decorative epoxy terrazzo flooring system.

APPLICATIONS

Strongcoat Terrazzo is used to provide a seamless and decorative flooring system in several areas such as:

- » Heavy traffic commercial centers.
- » Hospitals.
- » Soft drink and beverage production areas.
- » Pharmaceutical labs.
- » Airport terminals.
- » Schools.
- » Public buildings and offices.
- » Food processing plants.

ADVANTAGES

- » Seamless finish.
- » Hard-wearing system.
- » Non-slip.
- » Provides an aesthetic natural appearance.
- » Low maintenance.
- » Resistant to a wide range of chemicals, consult with DCP Technical Department for more details.

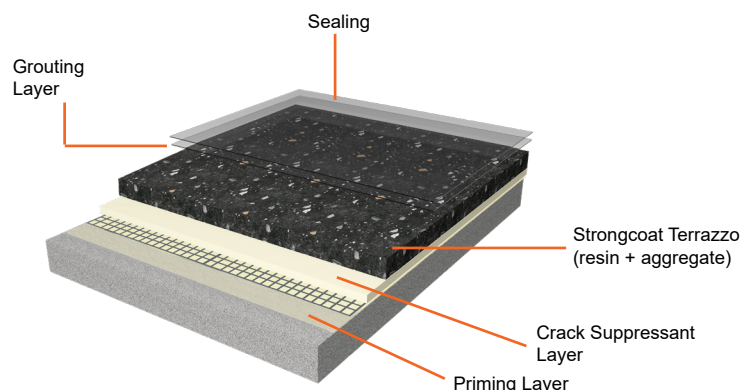
METHOD OF USE

SUBSTRATE PREPARATION

The substrate must be clean, dry, even, dense and free from oil, grease, dust and other contaminants. A clean surface will ensure maximum adhesion between the substrate and the system.

Concrete floors must have a minimum compressive strength of 25 N/mm² and a maximum concrete relative humidity of 75% (max. moisture content of 4%), relative humidity can be measured by using hygrometers.

Place metal divider strips (i.e., aluminium, stainless steel or brass strips) on the substrate as per the required design.



System Thickness 10 mm (8 mm after grinding)

Layer	Product	Consumption
Priming Layer	Strongcoat Primer	0.2 kg/m ²
	OR	
	Strongcoat UN101	0.35 kg/m ²
Crack Suppressant Layer	Antislip Aggregates #2 or #3	0.5 kg/m ²
	Glass Fiber Mesh	
	Gripdeck Flexcoat 100 (Optional)	0.4 - 0.5 kg/m ²
Resin Mortar Layer	Strongcoat Terrazzo Resin	17 - 20 kg/ m ² mixed aggregates of choice (at mix ratio of 1: 3.25 - 4)
Grouting Layer	Strongcoat Terrazzo Resin	0.4 kg/m ² (neat resin)
Sealing	Cemflow Sealer	0.1 kg/m ² /coat

Strongcoat Terrazzo

PRIMING

Prime concrete substrates with either Strongcoat Primer or Strongcoat UN101. Depending on the porosity or texture of the surface, multiple coats may be necessary.

Ensure the primer is thoroughly worked into the concrete surface. While the primer is still wet, broadcast Antislip Aggregates #2 or #3 uniformly at a rate of 0.5 kg/m² and allow it to reach a touch dry state.

CRACK SUPPRESSANT LAYER

MIXING

Gripdeck Flexcoat 100 comprises two components, a resin and a hardener, which are supplied pre-weighted in the correct proportions. Under no circumstances should part mixing be carried out.

The contents of each component should be thoroughly stirred separately to disperse any possible settlement. Taking care to ensure that the bottom and sides are thoroughly scraped, transfer the entire contents of the hardener component into the base component.

Using a power whisk attached to a slow speed electric drill, mix for approximately 3 minutes and until uniform colour and consistency are achieved.

Note: never mix Gripdeck Flexcoat 100 by hand as this could lead to areas of uncured material.

APPLICATION

Embed the glass fiber mesh (recommended density: 140 g/m²) while the primer is wet and firmly press it into the wet resin using a flat trowel, metal disc roller or flexible steel coil roller ensuring there is no creasing or air blisters.

Once Gripdeck Flexcoat 100 is mixed, the material should be immediately applied, ensuring that a continuous coating is obtained. Apply the Gripdeck Flexcoat 100 onto the floor using a brush, roller or squeegee.

Gripdeck Flexcoat 100 may be overcoated as soon as it becomes tack-free within 24 hours.

Once Gripdeck Flexcoat 100 is dry, any protruding fibres or uneven areas should be smoothed out by sanding or grinding.

Note: The use of Gripdeck Flexcoat 100 is optional and should be included where waterproofing is required.

TECHNICAL PROPERTIES FOR MIXED RESIN @ 25°C, WITHOUT AGGREGATE:

Colour:	Available in different colours
Mixed density:	1.45 ± 0.10 g/cm ³
Solid contents:	100%
Pot life:	50 - 100 min
Compressive strength: BS 6319-2	≥ 35 MPa @ 7 days
Flexural strength: EN 13892-2	≥ 15 MPa @ 7 days
Tensile strength: BS 6319-7	≥ 10 MPa @ 7 days
Bond strength on C25/30 concrete: EN 1542	≥ 2 MPa @ 7 days (concrete failure)
Shore D hardness: ASTM D2240	≥ 60
Water absorption: ASTM D570	≤ 0.2%
Taber abrasion resistance: (1000 g, 1000 cycle) ASTM D4060, weight loss, CS17 wheel	≤ 90 milligram

RESIN MORTAR LAYER

MIXING RATIO

The recommended mixing ratio for Strongcoat Terrazzo with aggregate is between 3.25 and 4 kg of aggregates for every 1 kg of mixed resin. Due to the diverse range of aggregates available, which vary in shape, size, dust content and absorbency, Strongcoat Terrazzo is provided only as base and hardener packs.

Mix with the selected aggregate to create unique finishing patterns. For advice on the gradation and size of aggregates, please consult DCP Technical Department.

Strongcoat Terrazzo

MIXING

Pre-stir each component to ensure that all solids and pigments are evenly distributed and eliminate any settlement in the materials.

Transfer the entire contents of the hardener pack into the base container and mix using a jiffy-type mixer attached to a slow running electric drill, mix for approximately 2 minutes.

Transfer the entire contents of the mixed resin container into a Casco or Creteangle-type mixer, ensuring that the bottom and sides are thoroughly scraped. Start the mixer and add the entire contents of the aggregate part. Continue mixing for approximately 2 minutes until a uniform mix is achieved and the aggregates are well coated with the resin mix.

Important: Never mix by hand as this could lead to areas of uncured material.

Note: It is recommended to pre-condition the unmixed material to least 24 hours at temperatures between 20 and 25°C to maintain the best results.

PLACING

Once mixing is complete, transfer the Strongcoat Terrazzo to the surface and start spreading and compacting the mortar to the desired thickness using a steel trowel so that the top of mortar is approximately levelled with the top of the divider strips.

GRINDING

After 24 hours (at 23°C ambient temperature), a mechanical grinding machine should be used to smooth the surface of Strongcoat Terrazzo so that the layer is levelled and the aggregate becomes apparent.

This step is repeated 3 - 4 times in slow circular motion until a smooth surface is achieved. Once dry grinding is finished, a vacuum cleaning machine should be used to remove all loose and dust particles.

GROUTING

After dry grinding, any pinholes should be prepared by filling them using a small quantity of Strongcoat Terrazzo neat resin.

Apply Strongcoat Terrazzo neat resin over the entire surface at a rate of 0.4 kg/m² with a hand trowel, ensuring it fills all pinholes, pits, and voids.

POLISHING

The polishing step should be done by wet grinding the layer; this will enhance the finishing of Strongcoat Terrazzo and transfer the layer from a matt finish into a shiny one. As a final step, the surface is cleaned by removing the slurry caused by wet grinding, clean water can be used to rinse the surface, and all slurry should be removed before sealing the surface.

SEALING

For optimal performance and lasting visual appeal, Strongcoat Terrazzo should be sealed with Cemflow Sealer, which enhances both the aesthetics and the chemical and physical durability of the surface

REMARKS

- » Strongcoat Terrazzo should not be applied on surfaces known to suffer from damp rising.
- » Strongcoat Terrazzo should not be applied at temperatures below 10°C or where concrete relative humidity exceeds 75%.
- » The substrate must contain no more than 5% moisture and have an effective damp-proof membrane.
- » Ensure that the glass fiber mesh is embedded into the primer while the primer is still wet.

CLEANING

All tools should be cleaned immediately after application using DCP Solvent. Hardened materials must be cleaned mechanically.

PACKAGING

Strongcoat Terrazzo is available in 18 kg coloured resin packs.



Strongcoat Terrazzo

THICKNESS RANGE

Between 6 - 10 mm, depending on aggregate size and shape.

CONSUMPTION

To achieve a total thickness of 10 mm (8 mm after grinding), mix 3.25 - 4 kg/m² Strongcoat Terrazzo Resin with 13 - 16 kg/m² aggregates of choice (at a mixing ratio of 1 kg resin to 3.25 - 4 kg aggregates).

Actual coverage and consumption will depend on the mixing proportions, aggregate size and shape, as well as the substrate regularity.

STORAGE

Strongcoat Terrazzo has a shelf life of 12 months from date of manufacture if stored at temperatures between 5°C and 35°C.

If these conditions are exceeded, contact DCP Technical Department for advice.

CAUTIONS

HEALTH AND SAFETY

Strongcoat Terrazzo should not come into contact with skin and eyes.

In case of contact with eyes, immediately flush with plenty of water and seek medical attention.

For further information, refer to the Material Safety Data Sheet.

FIRE

Strongcoat Terrazzo, Strongcoat Primer and Strongcoat UN101 are nonflammable.

DCP solvent is flammable. Ensure adequate ventilation. Do not use near a naked flame and do not smoke during use.

Flash Point:

DCP Solvent: 37°C.

MORE FROM DON CONSTRUCTION PRODUCTS

A wide range of construction chemical products are manufactured by DCP which include:

- » Concrete admixtures.
- » Surface treatments
- » Grouts and anchors.
- » Concrete repair.
- » Flooring systems.
- » Protective coatings.
- » Sealants.
- » Waterproofing.
- » Adhesives.
- » Tile adhesives and grouts.
- » Building products.
- » Structural strengthening.

Note:

We endeavour to ensure that any information, advice or recommendation we may give in product literature is accurate and correct. However, because we have no control over where and how products are applied, we cannot accept any liability arising from the use of the products.